

20-8547



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200  
Fax 613 632-5246

PRELIMINARY ISSUE

650.8402

Job Sheet 213115



POSITIVE RECALL

EFFECTIVE 20/09/20 AUTH SAR

RELEASED 55 DATE SEP 17 2020  
9-89

Part No: 650.8402

Job Qty: 10 pcs

Part Name: Plunger



Part Weight: 0 lbs

Status: New

Job Created: 9/16/20

Job Tracking No:

Due Date: 10/2/20

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG 650.8400 REV PA4 IPP REV A 20.09.14 NEW ISSUE FK VERIFY DD

Ship Via:

Bill of Materials

Job Routing

| Op No | Operation  | Qty    | Start Date | Due Date | Standard Setup Run Hrs Hrs | Workcenter/Supplier | Sign-off |
|-------|------------|--------|------------|----------|----------------------------|---------------------|----------|
| 100   | SL-154 - 1 | 10 pcs | 9/25/20    | 9/25/20  | 1.00 2.50                  | Doosan - 1          |          |
|       |            |        |            |          |                            | NLX 2500SY - 1      |          |
|       |            |        |            |          |                            | SL-154 - 1          |          |
|       |            |        |            |          |                            | SL-2500Y - 1        |          |
| 110   | QC 2       | 10 pcs | 9/25/20    | 9/25/20  | 0.00 0.00                  | QC 2 - 1            |          |
|       |            |        |            |          |                            | QC 2 - 12           |          |
|       |            |        |            |          |                            | QC 2 - 14           |          |
|       |            |        |            |          |                            | QC 2 - 17           |          |
|       |            |        |            |          |                            | QC 2 - 19           |          |
|       |            |        |            |          |                            | QC 2 - 2            |          |
|       |            |        |            |          |                            | QC 2 - 20           |          |
|       |            |        |            |          |                            | QC 2 - 22           |          |
|       |            |        |            |          |                            | QC 2 - 23           |          |
|       |            |        |            |          |                            | QC 2 - 25           |          |
|       |            |        |            |          |                            | QC 2 - 32           |          |
|       |            |        |            |          |                            | QC 2 - 33           |          |
|       |            |        |            |          |                            | QC 2 - 35           |          |
|       |            |        |            |          |                            | QC 2 - 39           |          |
|       |            |        |            |          |                            | QC 2 - 4            |          |
|       |            |        |            |          |                            | QC 2 - 40           |          |
|       |            |        |            |          |                            | QC 2 - 44           |          |
|       |            |        |            |          |                            | QC 2 - 45           |          |

Make per CNC program SAR  
~~Make all 10 parts without~~  
~~drawing~~ N/A Drawing (Pchm 4)  
~~Make~~ - Please provide All  
 Parts to Engineering (Qty 10) SAR  
 SAR  
 20/09/20

DAS  
55  
9-89

SEP 17 2020



Container No: S301470



Part: 650.8402  
 Job No: 213115  
 Serial No/Batch: S301470  
 Revision: REV - PA4  
 Inspector:  
 Exp Date:  
 Instructions:

Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
CANADA  
TEL: 1 813 632-5200  
Email: sales@dartaero.com  
www.dartaerospace.com

QC2-62 JB 20.09.20

Date: 09/20/20

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|     |                               |        |         |           |                        |                |
|-----|-------------------------------|--------|---------|-----------|------------------------|----------------|
|     |                               |        |         |           | QC 2 - 66              |                |
|     |                               |        |         |           | QC 2 - 64              |                |
|     |                               |        |         |           | QC 2 - 65              |                |
|     |                               |        |         |           | QC 2 - 5               |                |
|     |                               |        |         |           | QC 2 - 71              |                |
|     |                               |        |         |           | QC 2 - 73              |                |
|     |                               |        |         |           | QC 2 - 69              |                |
|     |                               |        |         |           | QC 2 - 76              |                |
|     |                               |        |         |           | QC 2 - 86              |                |
|     |                               |        |         |           | QC 2 - 83              |                |
| 120 | QC 8                          | 10 pcs | 9/25/20 | 0.00 0.00 | QC 8 - 12              |                |
|     |                               |        |         |           | QC 8 - 14              |                |
|     |                               |        |         |           | QC 8 - 17              |                |
|     |                               |        |         |           | QC 8 - 20              |                |
|     |                               |        |         |           | QC 8 - 25              |                |
|     |                               |        |         |           | QC 8 - 3               |                |
|     |                               |        |         |           | QC 8 - 32              |                |
|     |                               |        |         |           | QC 8 - 33              |                |
|     |                               |        |         |           | QC 8 - 35              |                |
|     |                               |        |         |           | QC 8 - 39              |                |
|     |                               |        |         |           | QC 8 - 4               |                |
|     |                               |        |         |           | QC 8 - 44              |                |
|     |                               |        |         |           | QC 8 - 45              |                |
|     |                               |        |         |           | QC 8 - 49              |                |
|     |                               |        |         |           | QC 8 - 58              |                |
|     |                               |        |         |           | QC 8 - 8               | Be 20-09-21    |
|     |                               |        |         |           | QC 8 - 9               |                |
|     |                               |        |         |           | QC 8 - 68              |                |
|     |                               |        |         |           | QC 8 - 67              |                |
|     |                               |        |         |           | QC 8 - 1 (A)           |                |
|     |                               |        |         |           | QC 8 - 47              |                |
|     |                               |        |         |           | QC 8 - 40              |                |
|     |                               |        |         |           | QC 8 - 52              |                |
|     |                               |        |         |           | QC 8 - 23              |                |
|     |                               |        |         |           | QC 8 - 57              |                |
|     |                               |        |         |           | QC 8 - 76              |                |
|     |                               |        |         |           | QC 8 - 61              |                |
|     |                               |        |         |           | QC 8 - 66              |                |
|     |                               |        |         |           | QC 8 - 73              |                |
|     |                               |        |         |           | QC 8 - 82              |                |
| 130 | Outsource - 15 - Nickel Plate | 10 pcs | 10/2/20 |           | GRO002-VC              | 5              |
| 140 | Packaging 2-1 - Receive - B4B | 10 pcs | 10/2/20 | 0.00 0.00 | Packaging 2 - 1 - B4B  |                |
|     |                               |        |         |           | Packaging 2 - 2 - B4B  |                |
|     |                               |        |         |           | Packaging 2 - 3 - B4B  |                |
|     |                               |        |         |           | Packaging 2 - 5 - B4B  | 10 SEP 28 2020 |
|     |                               |        |         |           | Packaging 2 - 4 - B4B  |                |
|     |                               |        |         |           | Packaging 2 - 6 - B4B  |                |
|     |                               |        |         |           | Packaging 2 - 7 - B4B  |                |
|     |                               |        |         |           | Packaging 2 - 8 - B4B  |                |
|     |                               |        |         |           | Packaging 2 - 9 - B4B  |                |
|     |                               |        |         |           | Packaging 2 - 10 - B4B |                |
|     |                               |        |         |           | Packaging 2 - 11 - B4B |                |
|     |                               |        |         |           | Packaging 2 - 12 - B4B |                |
|     |                               |        |         |           | Packaging 2 - 13 - B4B |                |
|     |                               |        |         |           | Packaging 2 - 14 - B4B |                |
|     |                               |        |         |           | Packaging 2 - 15 - B4B |                |
|     |                               |        |         |           | Packaging 2 - 16 - B4B |                |
|     |                               |        |         |           | Packaging 2 - 17 - B4B |                |
|     |                               |        |         |           | Packaging 2 - 18 - B4B |                |

|     |                             |        |         |                        |                        |  |
|-----|-----------------------------|--------|---------|------------------------|------------------------|--|
|     |                             |        |         | Packaging 2 - 19 - B4B |                        |  |
|     |                             |        |         | Packaging 2 - 20 - B4B |                        |  |
|     |                             |        |         | Packaging 2 - 21 - B4B |                        |  |
|     |                             |        |         | Packaging 2 - 22 - B4B |                        |  |
|     |                             |        |         | Packaging 2 - 23 - B4B |                        |  |
|     |                             |        |         | Packaging 2 - 24 - B4B |                        |  |
|     |                             |        |         | Packaging 2 - 25 - B4B |                        |  |
|     |                             |        |         | Packaging 2 - 26 - B4B |                        |  |
|     |                             |        |         | Packaging 2 - 37 - B4B |                        |  |
| 150 | QC 6                        | 10 pcs | 10/2/20 | 0.00 0.00              | QC 6 - 9               |  |
|     |                             |        |         |                        | QC 6 - 68              |  |
|     |                             |        |         |                        | QC 6 - 61              |  |
|     |                             |        |         |                        | QC 6 - 40              |  |
|     |                             |        |         |                        | QC 6 - 81              |  |
|     |                             |        |         |                        | QC 6 - 82              |  |
| 155 | QC 8                        | 10 pcs | 10/2/20 | 0.00 0.00              | QC 8 - 12              |  |
|     |                             |        |         |                        | QC 8 - 14              |  |
|     |                             |        |         |                        | QC 8 - 17              |  |
|     |                             |        |         |                        | QC 8 - 20              |  |
|     |                             |        |         |                        | QC 8 - 25              |  |
|     |                             |        |         |                        | QC 8 - 3               |  |
|     |                             |        |         |                        | QC 8 - 32              |  |
|     |                             |        |         |                        | QC 8 - 33              |  |
|     |                             |        |         |                        | QC 8 - 35              |  |
|     |                             |        |         |                        | QC 8 - 39              |  |
|     |                             |        |         |                        | QC 8 - 4               |  |
|     |                             |        |         |                        | QC 8 - 44              |  |
|     |                             |        |         |                        | QC 8 - 45              |  |
|     |                             |        |         |                        | QC 8 - 49              |  |
|     |                             |        |         |                        | QC 8 - 58              |  |
|     |                             |        |         |                        | QC 8 - 8               |  |
|     |                             |        |         |                        | QC 8 - 9               |  |
|     |                             |        |         |                        | QC 8 - 68              |  |
|     |                             |        |         |                        | QC 8 - 67              |  |
|     |                             |        |         |                        | QC 8 - 1 (A)           |  |
|     |                             |        |         |                        | QC 8 - 47              |  |
|     |                             |        |         |                        | QC 8 - 40              |  |
|     |                             |        |         |                        | QC 8 - 52              |  |
|     |                             |        |         |                        | QC 8 - 23              |  |
|     |                             |        |         |                        | QC 8 - 57              |  |
|     |                             |        |         |                        | QC 8 - 76              |  |
|     |                             |        |         |                        | QC 8 - 61              |  |
|     |                             |        |         |                        | QC 8 - 66              |  |
|     |                             |        |         |                        | QC 8 - 73              |  |
|     |                             |        |         |                        | QC 8 - 82              |  |
|     |                             |        |         |                        | QC 8 - 81              |  |
| 160 | Packaging 3-1 - Stock - B4B | 10 pcs | 10/2/20 | 0.00 0.00              | Packaging 3 - 1 - B4B  |  |
|     |                             |        |         |                        | Packaging 3 - 2 - B4B  |  |
|     |                             |        |         |                        | Packaging 3 - 3 - B4B  |  |
|     |                             |        |         |                        | Packaging 3 - 4 - B4B  |  |
|     |                             |        |         |                        | Packaging 3 - 5 - B4B  |  |
|     |                             |        |         |                        | Packaging 3 - 6 - B4B  |  |
|     |                             |        |         |                        | Packaging 3 - 7 - B4B  |  |
|     |                             |        |         |                        | Packaging 3 - 8 - B4B  |  |
|     |                             |        |         |                        | Packaging 3 - 9 - B4B  |  |
|     |                             |        |         |                        | Packaging 3 - 10 - B4B |  |
|     |                             |        |         |                        | Packaging 3 - 11 - B4B |  |
|     |                             |        |         |                        | Packaging 3 - 12 - B4B |  |
|     |                             |        |         |                        | Packaging 3 - 13 - B4B |  |

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OCT 01 2020

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OCT 01 2020

|                |        |         |           |                        |                  |
|----------------|--------|---------|-----------|------------------------|------------------|
|                |        |         |           | Packaging 3 - 14 - B4B |                  |
|                |        |         |           | Packaging 3 - 15 - B4B |                  |
|                |        |         |           | Packaging 3 - 16 - B4B |                  |
|                |        |         |           | Packaging 3 - 17 - B4B |                  |
|                |        |         |           | Packaging 3 - 18 - B4B |                  |
|                |        |         |           | Packaging 3 - 19 - B4B |                  |
|                |        |         |           | Packaging 3 - 20 - B4B |                  |
|                |        |         |           | Packaging 3 - 21 - B4B |                  |
|                |        |         |           | Packaging 3 - 22 - B4B |                  |
|                |        |         |           | Packaging 3 - 23 - B4B |                  |
|                |        |         |           | Packaging 3 - 24 - B4B |                  |
|                |        |         |           | Packaging 3 - 25 - B4B |                  |
|                |        |         |           | Packaging 3 - 26 - B4B |                  |
|                |        |         |           | Packaging 3 - 37 - B4B |                  |
| 170 QC 21 - SA | 10 pcs | 10/2/20 | 0.00 0.00 | QC 21 - SA - 21        | DAS 21           |
|                |        |         |           | QC 21 - SA - 70        | 9-09 OCT 02 2020 |
|                |        |         |           | QC 21 - SA - 9         |                  |

Part Op 100 - \*\*\*\*CRITICAL PART - EXTREME CARE MUST BE TAKEN\*\*\*\* \*\*\*\*MUST ENSURE THE COMPONENTS ARE NEVER DAMAGE\*\*\*\* 1-Machine as per folio FD370 FOLIO REV: AA DWG REV: PA 4 2-Debur

110 - QC2- Inspect parts off machine FAI/FAIB

120 - QC8- Inspect parts - second check

130 - -Issue P/O; \_\_\_\_\_ ELECTROLESS NICKEL PLATE IAW ASTM B733 TYPE 4/5 SC 2 AS PER DWG - Material type; STEEL 1215 -Certificate of Conformity is required

140 - Certificate of Conformity is required

150 - QC6- All purchased or subcontracted products

155 - Inspect dimensions after Nickel plate and record dimensions

160 - Identify as per dwg & Stock \*\*\*\*CRITICAL PART - EXTREME CARE MUST BE TAKEN\*\*\*\* \*\*\*\*MUST ENSURE THE COMPONENTS ARE NEVER DAMAGE\*\*\*\*

170 - QC21- Final Inspection - Work Order Release

| Job BOM     |                                 |                     |                |           |
|-------------|---------------------------------|---------------------|----------------|-----------|
| Part / Item | Component Name                  | Quantity            | Operation      | Container |
| M1215R0.625 | 1215 Round Bar, 0.625" Diameter | 1.0700 ft (.107 ea) | 100-SL-154 - 1 | 5286085   |

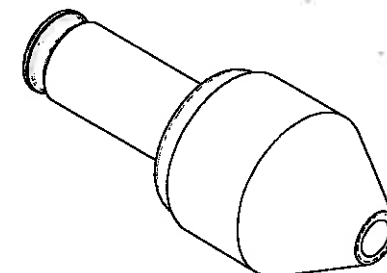
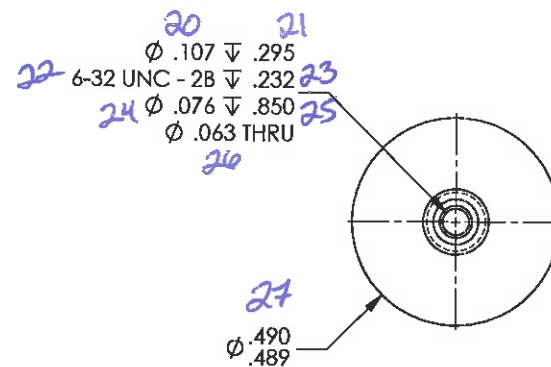
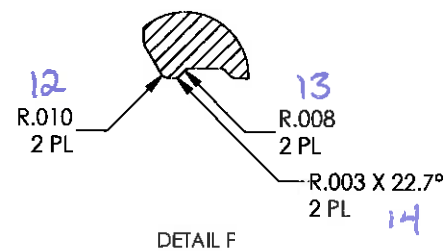
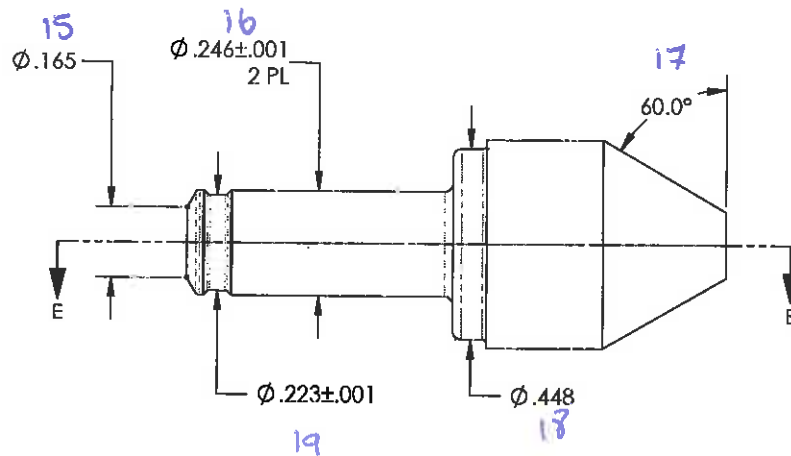
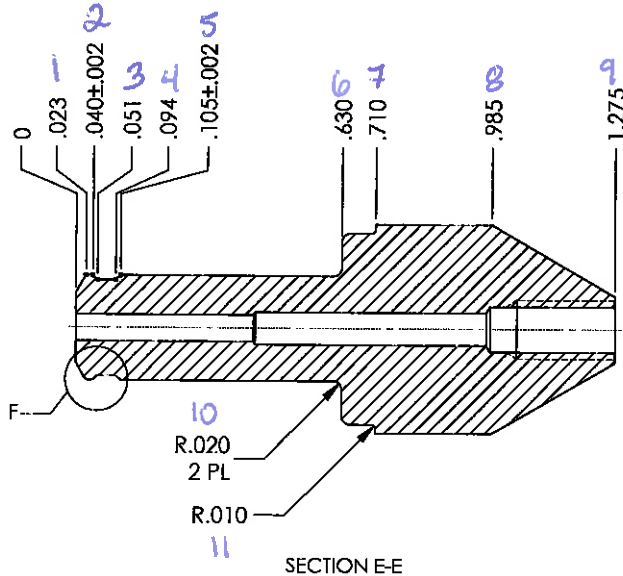
| Job Allocations |                |          |           |           |
|-----------------|----------------|----------|-----------|-----------|
| Operation       | Component Part | Required | Inventory | Allocated |
| 100-SL-154 - 1  | M1215R0.625    | 1        | 2         | 0         |

| Part Specifications                |  |
|------------------------------------|--|
| Specifications could not be found. |  |

Location  
PRELIM  
Status  
Preliminary

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PA4 650.8402

|                                                                                                                                             |                                                                       |                                                                |                      |
|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------|----------------------|
| ORIGINAL DATE<br>06-04-14                                                                                                                   | 3030 ENTERPRISE CT.,<br>SUITE A<br>VISTA, CA. 92081<br>(760)-724-5300 |                                                                |                      |
| DRAWN BY<br>J. GANTNER                                                                                                                      | CHECKED<br>P. BRAVO                                                   | DART<br>AEROSPACE<br>APICAL INDUSTRIES, INC.<br>DART AEROSPACE |                      |
| DRAWING APPROVAL<br>P. BRAVO                                                                                                                |                                                                       | PLUNGER                                                        |                      |
| CONTRACT NO.                                                                                                                                |                                                                       | REV. PA4                                                       |                      |
| UNLESS OTHERWISE SPECIFIED<br>DIMENSIONS ARE IN INCHES<br>TOLERANCES ARE:<br>1 PLACE DECIMALS ±.01<br>2 PLACE DECIMALS ±.005<br>ANGLES ±.2° |                                                                       | SHEET<br>8                                                     | DWG. NO.<br>650.8400 |
| SCALE NONE                                                                                                                                  |                                                                       | SHEET 3 OF 3                                                   |                      |

# DART AEROSPACE LTD

Work Order:

650.8402

Description: PLUNGER

Part Number:

650.8402

Inspection Dwg: 650.8400

Rev: PA4

Page 1 of 1

## INSPECTION SHEET

|    | Drawing Dimension    | Tolerance       | Actual Dimension   | Accept | Reject | Method of Inspection      | Comments |
|----|----------------------|-----------------|--------------------|--------|--------|---------------------------|----------|
| 1  | .023                 | ± .005          | .023 <sup>6</sup>  | ✓      |        | optical comp              |          |
| 2  | .040                 | ± .002          | .039               | ✓      |        | optical comp              |          |
| 3  | .051                 | ± .005          | .050 <sup>4</sup>  | ✓      |        | optical comp              |          |
| 4  | .094                 | ± .005          | .093 <sup>2</sup>  | ✓      |        | optical comp              |          |
| 5  | .105                 | ± .002          | .104 <sup>6</sup>  | ✓      |        | optical comp.             |          |
| 6  | .630                 | ± .005          | .630 <sup>8</sup>  | ✓      |        | optical comp              |          |
| 7  | .710                 | ± .005          | .709 <sup>8</sup>  | ✓      |        | optical comp              |          |
| 8  | .985                 | ± .005          | .984 <sup>6</sup>  | ✓      |        | optical comp              |          |
| 9  | 1.275                | ± .005          | 1.275 <sup>8</sup> | ✓      |        | optical comp              |          |
| 10 | R .020 (2 PL)        | ± .005          | R .020             | ✓      |        | R & 1/64 (Ref)            |          |
| 11 | R .010               | ± .005          | R .010             | ✓      |        | R & 1/64 (Ref)            |          |
| 12 | R .010 (2 PL)        | ± .005          | R .010             | ✓      |        | R & 1/64 (Ref)            |          |
| 13 | R .008 (2 PL)        | ± .005          | R .008             | ✓      |        | optical comp              |          |
| 14 | R .003 X 22.7° (2PL) | ± .005 X .5°    | R .003 X 22.7°     | ✓      |        | optical comp.             |          |
| 15 | Ø .165               | ± .005          | .164 <sup>8</sup>  | ✓      |        | optical comp.             |          |
| 16 | Ø .246 (2 PL)        | ± .001          | .245 <sup>1</sup>  | ✓      |        | Mic JB-09                 |          |
| 17 | 60.0°                | ± .5°           | 60°                | ✓      |        | optical comp.             |          |
| 18 | Ø .448               | ± .005          | .447°              | ✓      |        | Mic JB-09                 |          |
| 19 | Ø .223               | ± .001          | .222 <sup>1</sup>  | ✓      |        | Blade Mic LG-insp         |          |
| 20 | Ø .107               | ± .005          | .106               | ✓      |        | GP .106 (Ref)             |          |
| 21 | .295 DEEP            | ± .005          | .298 <sup>5</sup>  | ✓      |        | Vernier + GP JB-01        |          |
| 22 | 6-32 UNC - 2B        | GO / NO-GO      | 6-32 UNC 2B        | ✓      |        | GO / No-go 6-32 UNC 2B    |          |
| 23 | .232 DEEP            | ± .005          | .232               | ✓      |        | Vernier + set screw JB-01 |          |
| 24 | Ø .076               | ± .005          | .075               | ✓      |        | GP .075 (Ref)             |          |
| 25 | .850 DEEP            | ± .005          | .851               | ✓      |        | Vernier + GP JB-01        |          |
| 26 | Ø .063 THRU          | ± .005          | .062 THRU          | ✓      |        | GP .062 (Ref)             |          |
| 27 | Ø .489               | + .001 / - .000 | .489               | ✓      |        | Mic JB-09                 |          |

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|                 |      |                |               |
|-----------------|------|----------------|---------------|
| Measured by: JB | 9-89 | Checked by: D. | QC Inspector: |
| Date: 20 09.20  |      | Date: 20-09-21 | Date:         |

|                                         |       |
|-----------------------------------------|-------|
| Engineering Approval:<br>(If necessary) | Date: |
|-----------------------------------------|-------|

| Rev | Date      | Change    | Revised by | Approved |
|-----|-----------|-----------|------------|----------|
| A   | 20-Sep-20 | New Issue | MG         |          |

### **Electroless Nickel Plating to ASTM B733-04 (and newer)**

*Note: ASTM B733-04 is markedly updated from ASTM B733-90 in that the coating Type specifies the phosphorous content of the coating. ASTM B733-90 does not make this distinction.*

Type I: No requirement of phosphorous

Type II: 1-3% phosphorous (low phosphorous)

Type III: 2-4% phosphorous (low phosphorous)



Type IV: 5-9% phosphorous (medium phosphorous)

Type V: 10% or greater phosphorous (high phosphorous)

SC0: Minimum Thickness 0.000004 in

SC1: Light Service 0.0002 in minimum

SC2: Mild Service 0.0005 in minimum

SC3: Moderate Service 0.001 in minimum

SC4: Severe Service 0.003 in minimum

Class 1: As-deposited, no heat treatment.

Class 2: Heat treatment at 260 to 400°C (500-752°F) to produce a minimum hardness of 850 HK100.

Class 3: Heat treatment at 180 to 200°C (356-392°F) for 2 to 4-hr to improve coating adhesion on steel and to provide for hydrogen embrittlement relief.

Class 4: Heat treatment at 120 to 130°C (248-266°F) for at least 1-hr to increase adhesion of heat-treatable (age-hardened) aluminum alloys (such as 7075) and carburized steel.

Class 5: Heat treatment at 140 to 150°C (284-302°F) for at least 1-hr to improve coating adhesion for aluminum, non age-hardened aluminum alloys, copper, copper alloys and beryllium.

Class 6: Heat treatment at 300 to 320°C (572-608°F) for at least 1-hr to improve coating adhesion for titanium alloys.





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Hawkesbury, ON  
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Tel (613) 632-5200

# **PURCHASE ORDER** **POHB047141**



**Supplier:** GRO002-VC  
Group Altech  
2455 Halpern  
St Laurent  
QC  
H4S 1N9 Canada  
Phone: 514-335-3666  
Fax: 514-335-3868

**Attention:** Grenon, Sylvie

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**PO No:** POHB047141

**PO Date:** 9/21/20

**Due Date:** 9/24/20

**Purchase Order**

**Revision:**

**Revision Date:**

**Issued By:** Lussier, Patrick  
Phone: 613-632-5200 Ext: 276  
plussier@dartaero.com

**Via:** Ground

**Pymt Terms:** Net 60

**Freight Terms:**

**Special Comments:**

## Items

| Line Item | Job    | Part     | Drawing          | Description                                                                                                                                                                                           | Status       | Account | Due Date | Order Quantity | Received Quantity | Balance | Unit Price (CAD) | Extended Price |
|-----------|--------|----------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------|----------|----------------|-------------------|---------|------------------|----------------|
| 1         | 213115 | 650.8402 | 650.8400 REV-PA4 | Plunger<br>-Issue P/O;<br><br>ELECTROLESS<br>NICKEL PLATE<br>IAW ASTM<br>B733 TYPE 4/5<br>SC 2 AS PER<br>DWG<br><br>-Material type;<br>STEEL 1215<br><br>-Certificate of<br>Conformity is<br>required | Firmed<br>NO | -       | 9/24/20  | 10 pcs         | 0 pcs             | 10 pcs  | \$13.33/pcs      | \$133.30       |

SEP 28 2020

Line Item Note \*\*\* RUSH \*\*\*





Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# PURCHASE ORDER

## POHB047141



### Items

| Line Item    | Job    | Part     | Drawing        | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Status       | Account | Due Date | Order Quantity | Received Quantity | Balance | Unit Price (CAD) | Extended Price |
|--------------|--------|----------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------|----------|----------------|-------------------|---------|------------------|----------------|
| 2<br>✓       | 209070 | C45-15-6 | C45-15-6 Rev - | Bushing, Lifting Outside Processing - Nickel Plate)- Issue P/O;<br><br>-All noncertified parts specifying a finish of Nickel Plating per QQ-N-290, or parts with drawings that are missing a specification Can be Nickel Plated per ASTM B733 Type 4/5, SC0-SC4 or MIL-C-26074 Class 1/2<br>-Material type; 4140<br>-Heat treat must be carried out to specified hardness if noted on the drawing.<br>-Plating thickness must be carried out as specified on the drawing.<br>-Certificate of Conformity is required | Firmed<br>X8 | -       | 9/24/20  | 8 pcs          | 0 pcs             | 8 pcs   | \$13.33/pcs      | \$106.64<br>15 |
| Grand Total: |        |          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |              |         |          |                |                   |         |                  | \$239.94       |



Dart Aerospace Ltd.  
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Canada

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**PURCHASE ORDER**  
**POHB047141**



**Order Notes**

**Procurement Quality Clauses**

A005 right of entry  
A012 chemical and physical test report  
A016 personnel qualification  
A017 raw material identification (as applicable)

A022 Apical Processing  
A024 process certifications  
A026 certification of material conformance

A041 quality management system  
A042 dart notification by supplier  
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

Please ensure to send the related invoice to [hby\\_ap@dartaero.com](mailto:hby_ap@dartaero.com).

*Plex 9/22/20 3:23 PM dart.lussler.patrick*



## Certificat de Conformité / Certificate of Compliance



2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9  
Tel: 514-335-3666 Fax: 514-335-3868  
www.groupaltech.com

## Bon de Livraison / Packing Slip

031067 - 1

Livré à / Ship to

**DART AEROSPACE LTD**  
1270 ABERDEEN STREET  
HAWKESBURY, ON, K6A1K7  
CANADA  
Tel.: 613-632-5200 Fax.:

Client / Customer:

**DART AEROSPACE LTD**  
1270 ABERDEEN STREET  
HAWKESBURY, ON, K6A1K7  
CANADA  
BUYER:

| Date expédition<br>Ship date |                                                           | Créé Par<br>Generated By                                                                                                                                      | Transport / No de Compte<br>Courier / Acc. No. | Bon de commande Client<br>Customer Purchase Order No |                 |                   |               |                         |
|------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|------------------------------------------------------|-----------------|-------------------|---------------|-------------------------|
| 25-Sep-2020                  |                                                           | Ian Wilson                                                                                                                                                    |                                                | POHB047141                                           |                 |                   |               |                         |
| #Ligne<br>Lines              | No. de Série / # Pièce<br>Part Number / Line Item Details | Description pièce(s)                                                                                                                                          | CATG.<br>U/M                                   | Comm.<br>/Ordered                                    | Exp/<br>Shipped | Qté NC/<br>NC Qty | Qté<br>Scrap/ | À venir /<br>Back Order |
| 1                            | 650.8402<br>Rev.PA4                                       | 650.8402<br>01-E-NIC STEEL E-NICKEL STEEL<br>IAW ASTM B733 TYPE 4/5 SC2 AS PER DWG<br>MATERIAL TYPE STEEL 1215                                                | ELECTROLESS<br>CH                              | 10                                                   | 10              | 0                 | 0             | 0                       |
| 2                            | C45-15-6<br>Rev.                                          | C45-15-6<br>E-NIC STEEL 200 [E-NICKEL STEEL 200]<br>ASTM B733 TYPE 4/5, SC0- SC4 OR<br>MIL-C-26074 CLASS 1/2<br>0.0004-0.0006 THICKNESS<br>BAKE AFTER PLATING | E-NICKEL STEEL<br>CH                           | 8                                                    | 8               | 0                 | 0             | 0                       |

DAS  
82  
9-89

RECEIVED

SEP 28 2020

DART AEROSPACE LTD.

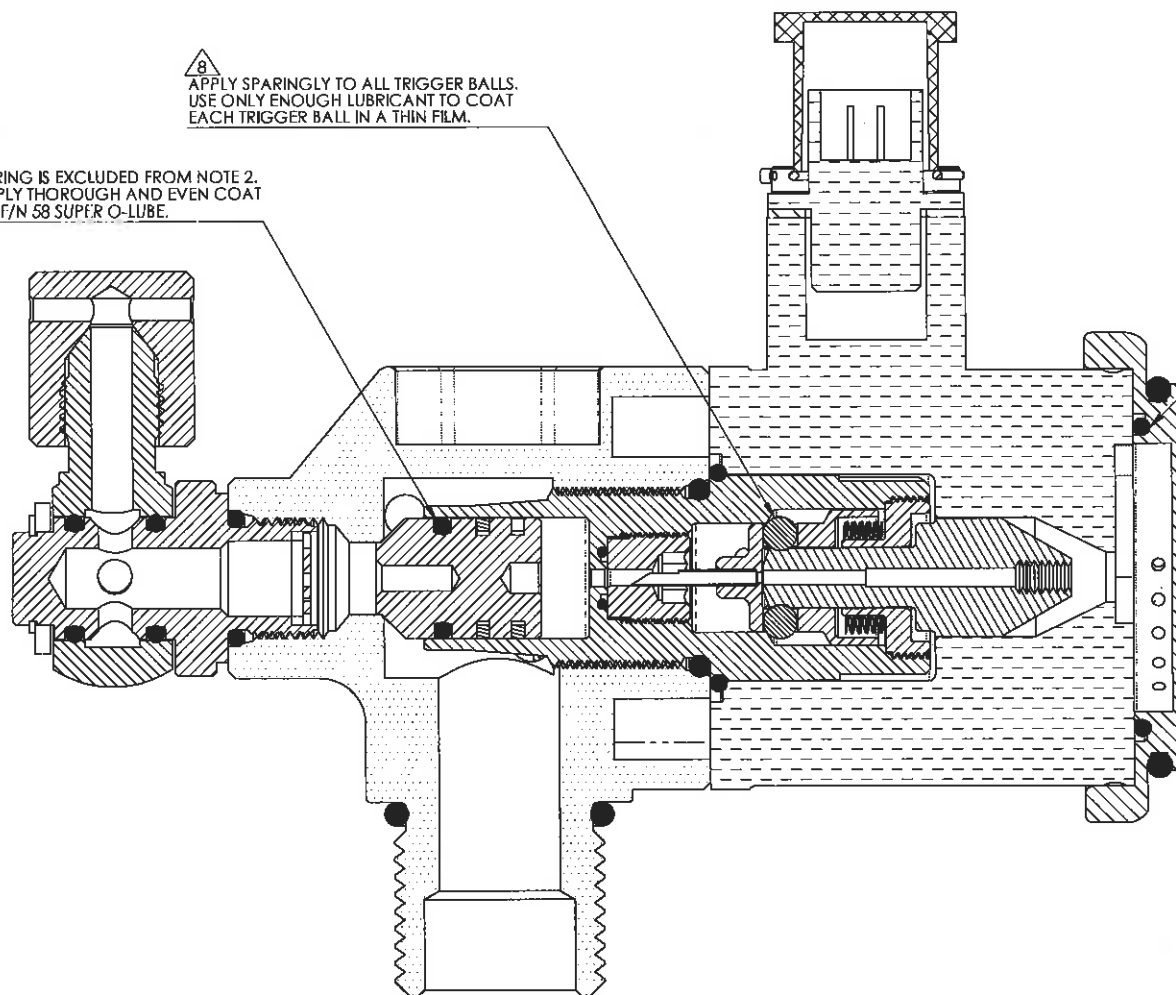
Notes Additionnelles / Additional Notes

Epaisseur réelle  
Actual ThicknessInspecteur Qualité  
Quality InspectorRéçu par  
Received By

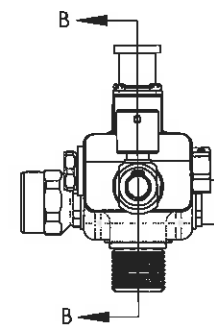
Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.  
Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.  
Our financial and legal responsibility will not be higher than the amount of invoice.

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



APPLY EXCESS O-RING LUBRICANT



FRONT VIEW

**SECTION B-B**  
(ASSEMBLY REFERENCE)  
(TYPICAL ELECTRICAL CONFIGURATION)

|                              |                        |                                                                                                                                            |                                                                       |
|------------------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| ORIGINAL DATE<br>10-02-10    | DESIGNED<br>J. GARDNER | DESIGNED<br>P. BRAVO                                                                                                                       | 3030 ENTERPRISE CT.,<br>SUITE A<br>VISTA, CA, 92081<br>(760)-724-5300 |
| DRAWING APPROVAL<br>10-04-10 | CONTRACT NO.           | UNLESS OTHERWISE SPECIFIED<br>DIMENSIONS ARE IN INCHES<br>TOLERANCES ARE<br>2 PLACE DECIMALS ±.01<br>3 PLACE DECIMALS ±.005<br>ANGLES ±.5° | APICAL INDUSTRIES, INC.<br>DBA DART AEROSPACE                         |
| ELECTRIC VALVE ASSY          |                        |                                                                                                                                            | REV. P.11                                                             |
| SHEET<br>B                   | CAGE CODE<br>07M26     | DWG. NO.<br>650.5300                                                                                                                       | SCALE<br>NONE                                                         |
| SHEET 12 OF 18               |                        |                                                                                                                                            |                                                                       |



## Ketan Tailor

---

**From:** Jason Gardiner  
**Sent:** September-29-20 5:14 PM  
**To:** Ketan Tailor  
**Subject:** RE: Deviation for 650.8402 Plunger

Hi Ketan,

As we had discussed this feature is a legacy feature from when the plunger for the electromechanical configurations was two pieces and is no longer used. The parts are acceptable to us as is.

Regards,

Jason

**From:** Ketan Tailor <ktailor@dartaero.com>  
**Sent:** Tuesday, September 29, 2020 1:24 PM  
**To:** Jason Gardiner <jgardiner@dartaero.com>  
**Subject:** Deviation for 650.8402 Plunger

Hey Jason,

During inspection, the go gauge for the 6-32 threaded hole only engaged 1 thread.

Please confirm if it is acceptable to use as is.

Thanks,  
Ketan

2R Date: OCT 08 2020

OCT 08 2020

NCR No.

20-8547

### WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

Route update only



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                      |  |                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------|--|--------------------------------------------------------|
| Job: <u>213115</u><br>Part No. <u>650.8402</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | <b>DISPOSITION</b><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | <b>DEPARTMENT/PROCESS</b><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input checked="" type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input checked="" type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div> |  |                                                      |  |                                                        |
| Date : <u>SEP 29 2020</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  | Sequence #: <u>QC6-QC8</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | QTY Affected : <u>10</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | MRB (QSI042)<br><b>DAS 51</b><br>9-89 <u>20-9-29</u> |  |                                                        |
| <b>Description Work Order Deviation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | <b>Disposition</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                      |  |                                                        |
| DURING INSPECTION IT WAS FOUND THAT THE<br>THREADED HOLE 6-32 UNC -2B IS SMALLER DUE TO<br>PLATING. ONLY 1 THREAD WILL ENGAGE WHEN<br>USING THE GO/NO-GO GAGE.                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | <div style="font-size: 1.5em; font-family: cursive;">           Acceptable as is<br/>           (see attach <del>QC6-QC8</del> e-mail)         </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                      |  | Completed By<br><b>DAS 82</b><br>9-89                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                      |  | Lead hand / Supervisor<br>DAS 9<br>9-89 <u>20-9-30</u> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                      |  | QC / QA Coordinator<br>DAS 9<br>9-89 <u>20-9-30</u>    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                      |  |                                                        |
| <b>Root Cause</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | <b>FAULT CATEGORY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                      |  |                                                        |
| <div style="display: flex; flex-direction: column;"> <div>Operator <input type="checkbox"/></div> <div>Manufacturing Process <input checked="" type="checkbox"/></div> <div>Equip/Tooling <input type="checkbox"/></div> <div>Handling/Presservation <input type="checkbox"/></div> <div>Material <input type="checkbox"/></div> <div>Product Improvement <input type="checkbox"/></div> <div>Process Improvement <input type="checkbox"/></div> <div>Human Factors <input type="checkbox"/></div> </div> |  | <div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> <div style="width: 33%;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input checked="" type="checkbox"/> Fit/Function         </div> <div style="width: 33%;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="width: 33%;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                      |  |                                                        |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                      |  |                                                        |